

(51) Int Cl.:  
**H03G 3/30** (2006.01)

(22) Date of filing: **02.03.2001**

- Simic, Emilija  
La Jolla, CA 92037 (US)
- Wilborn, Thomas  
San Diego, CA 92124 (US)
- Zhang, Haitao  
San Diego, CA 92116 (US)
- Filipovic, Daniel  
Solana Beach, CA 92075 (US)
- Kaufman, Ralph  
San Diego, CA 92121-1714 (US)
- Lin, Jian  
San Diego, CA 92126 (US)

(72) Inventors:  
• **Younis, Saed**  
**San Diego, CA 92121-1714 (US)**

(74) Representative: **O'Neill, Aoife et al**  
**Tomkins & Co.**  
**5 Dartmouth Road**  
**Dublin 6 (IE)**

to speed up the response time of a control signal. The control loop for various elements in the transmit signal path are integrated. A gain control mechanism allows for accurate adjustment of the output transmit power level. Control mechanisms are provided to power down the power amplifier, or the entire transmit signal path, when not needed. The gains of the various elements in the transmit signal path are controlled to reduce transients in the output transmit power, and to also ensure that transients are downward.





## EUROPEAN SEARCH REPORT

Application Number  
EP 09 17 3340

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 5 627 857 A (WILSON NATHANIEL B [US]) 6 May 1997 (1997-05-06)	1,6-11	INV. H03G3/30
Y	* abstract; figures 2, 5-10 * * column 4, lines 15-30 * * column 5, line 39 - column 10, line 7 * -----	1-13	
Y	JP 11 008560 A (MATSUSHITA ELECTRIC IND CO LTD) 12 January 1999 (1999-01-12) * abstract; figures 7,8,10,13,14 * * paragraphs [0017] - [0019], [0090], [0103], [0104] * -----	1-13	
Y	US 5 808 575 A (HIMENO TAKUJI [JP] ET AL) 15 September 1998 (1998-09-15) * abstract; figures 3-5 * * column 5, lines 1-9 * * column 12, lines 38-50 * * column 16, lines 55-62 * -----	1-13	
Y	EP 0 977 354 A1 (NIPPON TELEGRAPH & TELEPHONE [JP]) 2 February 2000 (2000-02-02) * abstract; figures 2-13 * -----	1-13	
Y	EP 0 961 402 A2 (NOKIA MOBILE PHONES LTD [FI] NOKIA CORP [FI]) 1 December 1999 (1999-12-01) * abstract; figures 3-8 * * paragraph [0017] - paragraph [0019] * -----	1-13	
A	WO 99/31799 A1 (SAMSUNG ELECTRONICS CO LTD [KR]) 24 June 1999 (1999-06-24) * abstract; figures 3,4 * * page 6, line 2 - line 12, paragraph 12 * -----	1-13	TECHNICAL FIELDS SEARCHED (IPC)  H03G H03F
The present search report has been drawn up for all claims			
Place of search <b>Munich</b>		Date of completion of the search <b>27 April 2010</b>	Examiner <b>Wichert, Beate</b>
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

2

EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 09 17 3340

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
The members are as contained in the European Patent Office EDP file on  
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

27-04-2010

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
US 5627857	A	06-05-1997	AT	229709 T	15-12-2002
			AU	704530 B2	29-04-1999
			AU	7160996 A	01-04-1997
			CA	2233692 A1	20-03-1997
			CN	1200848 A	02-12-1998
			DE	69625367 D1	23-01-2003
			DE	69625367 T2	16-10-2003
			EP	0850509 A1	01-07-1998
			ES	2188790 T3	01-07-2003
			FI	980592 A	18-03-1998
			HK	1015088 A1	11-07-2003
			IL	119239 A	12-05-2004
			NZ	319397 A	28-07-1998
			RU	2158474 C2	27-10-2000
			WO	9710644 A1	20-03-1997
			ZA	9607426 A	10-03-1997
-----					
JP 11008560	A	12-01-1999	NONE		
-----					
US 5808575	A	15-09-1998	GB	2307121 A	14-05-1997
			ID	17245 A	11-12-1997
			JP	9130245 A	16-05-1997
-----					
EP 0977354	A1	02-02-2000	WO	9943083 A1	26-08-1999
			JP	3387508 B2	17-03-2003
			US	6265935 B1	24-07-2001
-----					
EP 0961402	A2	01-12-1999	CN	1241881 A	19-01-2000
			DE	69929938 T2	09-11-2006
			JP	2000049630 A	18-02-2000
			US	6563883 B1	13-05-2003
-----					
WO 9931799	A1	24-06-1999	AU	732676 B2	26-04-2001
			AU	1508799 A	05-07-1999
			BR	9807388 A	14-03-2000
			CN	1247647 A	15-03-2000
			DE	69833386 T2	13-07-2006
			EP	0960475 A1	01-12-1999
			IL	131313 A	24-06-2003
			JP	2000513544 T	10-10-2000
			US	6397090 B1	28-05-2002
			-----		